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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,217	03/15/2004	Akihiro Maczawa	KOY-0037	3115
23413	7590	06/21/2005	EXAMINER	
CANTOR COLBURN, LLP 55 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002			SCHILLING, RICHARD L	
			ART UNIT	PAPER NUMBER
			1752	

DATE MAILED: 06/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/801217

Applicant(s)

Examiner

RL Schilling

Group Art Unit

1752

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

## Status

- ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-5 is/are pending in the application.  
Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-5 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☒ The drawing(s) filed on 3-15-04 is/are accepted ~~objected to~~ by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
  - ☒ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been received.
  - ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
  - ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 6-28-04
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other \_\_\_\_\_

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1. Claims 4 and 5 are rejected under the first and second paragraphs of 35 U.S.C. § 112 as being based on insufficient disclosure and as being indefinite. Claim 4 appears to be incomplete. How a panel can be made without coating the heated phosphor material onto a support is indefinite. Also, the specification fails to show one skilled in the art how to make panels without coating the phosphor materials onto a support.

2. Claims 1, 4 and 5 are rejected under the first paragraph of 35 U.S.C. § 112 as being based on insufficient disclosure. The specification fails to show one skilled in the art how to make and use conversion panels with the required strength ratios of instant claim 1 other than those comprising phosphor materials of alkali halide with activators as set forth by Formula 1 of instant claim 2. The required strength ratios made by heating at 400 to 700°C for 1 to 3 hours in a specific vacuum followed by cooling and then reheating. The luminescent properties of these phosphors would depend on its composition as well as heating temperatures during vacuum. The specification does not disclose heat treatments of phosphor materials other than those of instant claim 2 in order to obtain the particular strength ratios required by instant claim 1.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the

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rejections under this section made in this Office action:

A person shall be entitled to a patent unless --  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hosoi '974. Hosoi '974 (see particularly Example 1) discloses making phosphors by heating raw phosphors at 525°C for 2 hours followed by cooling and then reheating at 150°C to degas.

The phosphor used is CsBrEu which is used in applicants' working Examples as set forth in instant claim 3. The panels formed in Hosoi, being of the same composition as in applicants' working Examples and formed by heating, cooling and reheating, would

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inherently have the strength ratios required by instant claim 1.

4. Claims 1-4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Iwabuchi et al. Iwabuchi et al. (see particularly paragraphs 28, 29, 40, 108; Examples 1-5 and 7) disclose forming phosphors by heating CsBrEu at preferably 525°C for .5-5 hours. In Examples 1-5 the phosphors are heated at 525°C for 1 hour followed by cooling with new gas and then reheating to 525° for 1 hour. In Example 7, after heating at 525° for 2 hours, the product is cooled and then reheated at 150°C.

5. The prior art submitted by applicants has been considered.

6. Any inquiry concerning this communication should be directed to Mr. Schilling at telephone number (571) 272-1335.

RLSchilling:cdc

June 14, 2005

RICHARD L. SCHILLING  
PRIMARY EXAMINER  
GROUP 1100 1752

